

09/733,392 & 90/005,710

12/21/06

Changes to the Specification

The last paragraph in column 1 which begins in col. 1 line 56 and ends at col. 2 line 4 is to be rewritten as indicated below (marked according to 37 CFR 1.173).

Since the inception of the Clean Water Act of 1974, various cationic and anionic polyacrylamides have been commercially available and effective for the dewatering of biological sludge which, using a [mesophyllic]~~mesophilic~~ bacterial method, has undergone aerobic or anaerobic digestion. Until now, when [mesophyllic]~~mesophilic~~ bacteria are used, digester systems operate between about 60 °F[.] (15 °C[.]) and about 105 °F[.] (40 °C[.]). However, the aerobic and anaerobic digestion systems that operate between about 60 °F[.] (15 °C[.]) and about 105 °F[.] (40 °C[.]) have limited capabilities in the removal of pathogens from the biological sludge. These pathogens are detrimental to human and animal health and, thus, Federal and State regulations are being enacted to prevent the potential spread of pathogens from municipal sludge. Implementation of such regulations leads to costly handling and disposal of waste activated sludge.

The last paragraph in column 4 which begins in col. 4 line 66 and ends at col. 5 line 10 is to be rewritten as indicated below (marked according to 37 CFR 1.173).

Upon application of the present invention, plant throughput was increased by 300 percent (60 percent of rated capacity) and the dry polymer dosage requirement was reduced to near 850 ppm. The significant improvements of this invention in sludge dewatering are accomplished by the addition of polyquaternary amines to the sludge. Poly-d[D]i-allyl di-methyl ammonium chlorides (polyDADMAC) and poly-epichlorohydrin di-methyl amine (polyepi-DMA) are two preferred polyquaternary amines used in sludge dewatering. Both of these polyquaternary amine moieties have been found to provide sites for the dewatering of sludge from the thermophilic digestion process.

These amendments to the specification, as requested by the Examiner, provide no new matter to the specification.